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PATENT

REMARKS

§103 Rejection of Claims 1-57

Claims 1-57 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Paul, U.S. Patent No. 6,198,417 B1 ("Paul"), in view of Lewison, U.S. Patent No. 5,933,453 ("Lewison"). This rejection is respectfully traversed and it is submitted that these claims, in their originally filed forms, recite patentable subject matter notwithstanding Paul and Lewison.

With reference to the remarks concerning Paul and Lewison as submitted in Amendment A (incorporated herein by reference), it is respectfully submitted that neither Paul nor Lewison, nor Paul and Lewison together teach or suggest the presently claimed invention. Further and more specifically, in his response to the arguments submitted in Amendment A, the Examiner contends that "[a]s shown in figure 2, element 103 of Lewison clearly generates a PWM output which is used by the feedback element (104) to provide a feedback signal to the combination circuit (105)" (emphasis added). Based upon this, the Examiner concludes that it would have been obvious to combine the teachings of Paul and Lewison. It is respectfully submitted that Lewison does not, in fact, teach such feedback, and that, therefore, such a purported combination of the teachings of Paul and Lewison would not have been obvious.

First, the circuitry shown in Figure 2 of Lewison, which purports to be an expanded view of "control circuit 103", contains <u>no feedback</u>. The signal path from the "input" through to the "PWM output" is an entirely forward-directed signal path. Second, while the circuitry shown in Figure 1 of Lewison does contain feedback in the form of "feedback sensor 104", such feedback is <u>not of the output signal from "pulse width modulator 205"</u>. In other words, in contrast to the presently claimed invention

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which expressly requires feedback of the recited "discrete pulse width modulated signal" (independent claims 1, 20 and 39), the circuitry of Lewison uses feedback of some other signal, i.e., some signal emanating from "load 101", not the "PWM output" of "control circuit 103". Hence, it would not have been obvious to combine the teachings of Paul and Lewison. This is particularly true in view of the fact (as noted in Amendment A) that Paul teaches a deterministic analog-to-digital conversion circuit while Lewison teaches a probabilistic PWM circuit. So, not only do Paul and Lewison teach about different types of circuits, i.e., analog-to-digital converters versus pulse width modulators, respectively, but they also teach about such circuits having mutually exclusive characteristics, i.e., deterministic versus probabilistic.

Accordingly, it is respectfully submitted that neither Paul nor Lewison sets forth any suggestion to combine their respective teachings, and further that it would not have been otherwise obvious to combine an analog-to-digital signal converter with an unrelated pulse width modulator, particularly when such circuits are expressly taught as having mutually exclusive deterministic and probabilistic characteristics.

It is further submitted that the foregoing remarks do not raise any new issues that require any further searching as such remarks are in complete conformance with those submitted in Amendment A. Accordingly, it is respectfully requested that this Amendment be considered and entered and the presently pending claims be allowed and proceed to issuance.

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Conclusion

Claims 1-57 remain pending in this case. Based upon the foregoing remarks, it is respectfully submitted that these claims are allowable, and reconsideration and early allowance of these claims are requested. To expedite allowance and issuance of this application, the Examiner is respectfully requested to contact the undersigned by telephone to discuss any questions, comments or concerns.

Respectfully submitted,

VEDDER, PRICE, KAUFMAN & KAMMHOLZ, P.C.

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